Remarks

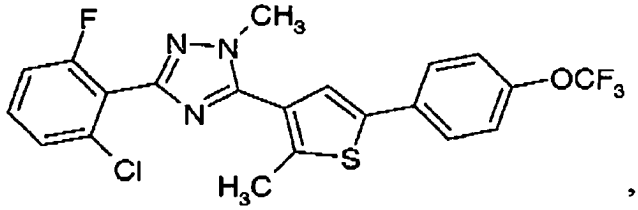
Claims 1-14 are now in this application. Claims 1, 6, 7, 8, 13, 14, 15, 20 and 21 have been amended. Claims 15-21 have been deleted.

In confirmation of the telephone conversation with the Examiner on July 29, 2004, the applicants elect without traverse to prosecute Group 1 of claims 1-14, i. e., those compounds and compositions of the formula of claim 1 wherein R^4 and R^5 taken together do not form a 5-or 6- membered ring containing 1 or 2 oxygen atoms. Independent claims 1, 8 and 15 are amended to limit the claims to the elected Group 1.

In addition, the substituents R^4 and R^5 are being restricted to the group C_1-C_6 haloalkyl, C_1-C_6 haloalkoxy or phenoxy and to the group H or halogen respectively. This amendment is being made to more particularly define the invention. Dependent claims 6, 7, 13, 14, 20 and 21 are amended to conform to the new definitions of R^4 and R^5.

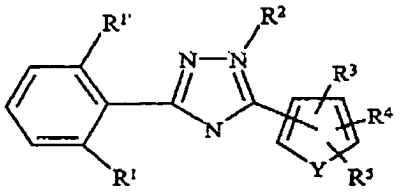
Method claims 15-21 are being deleted to comply with the restriction requirement. Claims 15, 20 and 21 are amended to conform to the amended compound and composition claims prior to cancellation. The amendment prior to cancellation is being done to facilitate rejoinder of the process claims 15-21 in the event product claims are found allowable.

The applicants elect the eighth compound on page 80, viz.,



for search purposes.

Claims 1-14 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent 6,262,305 (Pechacek *et al.*). The rejection asserts that Pechacek *et al.* discloses a triazole compound of formula 1A



wherein

R^1 and $R^{1'}$ are independently H, Cl, F, methyl, halomethyl, methoxy, or halomethoxy;

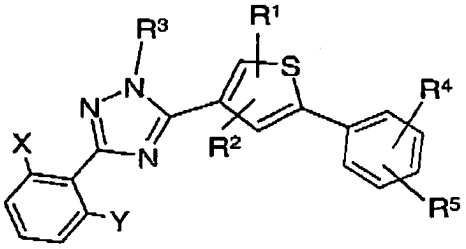
Y is O or S;

R^2 is lower alkyl, haloalkyl, lower alkenyl, lower alkynyl, or alkoxyalkyl;

R^3 is selected from H, halo, lower alkyl, C_7-C_{21}) straight chain alkyl, hydroxyl, lower alkoxy, haloalkyl, haloalkoxy...phenyl, substituted phenyl...;

R^4 and R^5 are independently H, halo, lower alkyl, lower alkoxy, haloalkyl, haloalkoxy....

The present invention claims compounds of the formula



wherein

X and Y independently represent Cl or F;

R^1 and R^2 independently represent H, C_1-C_6 alkyl or halogen;

R^3 represents C_1-C_3 alkyl;

R^4 represents C_1-C_6 haloalkyl, C_1-C_6 haloalkoxy or phenoxy;

R^5 represents H or halogen;

or a phytologically acceptable acid addition salt thereof.

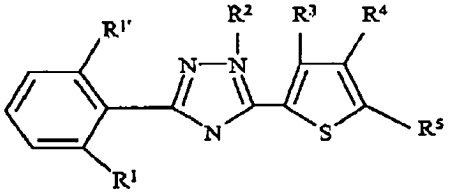
While the compounds of the present invention are generally embraced by the generic disclosure of Pechacek *et al.*, they are neither specifically taught nor suggested.

The compounds of the present invention are connected to the triazole ring at the 3-position of the thiophene ring and to the substituted phenyl group at the 5-position of the thiophene ring. There is not a single example of such a thiophene isomer disclosed in Pechacek *et al.* There are three examples of such substituted furan rings (compounds 14, 30 and 91), but these compounds exhibit activity only against cotton aphids at no more than a maximum 70% control at 50 ppm.

The compounds of the present invention contain a phenyl group substituted with a haloalkyl, haloalkoxy or a phenoxy group at the 5-position of the thiophene ring. Pechacek *et al.* has not a single example of a phenyl group with a haloalkoxy substituent and only one example of a phenyl group with a haloalkyl substituent (compound 91) and only two examples of a phenyl group with phenoxy substituents (compounds 27 and 28).

At column 4, Pechacek *et al.* discloses that:

"A particularly preferred class of compounds includes those of formula (1B)



wherein
R^1 and $R^{1'}$ are independently F or Cl;
R^2 is lower alkyl, with methyl being most preferred; and
R^3, R^4 and R^5 are independently H, Cl or Br."

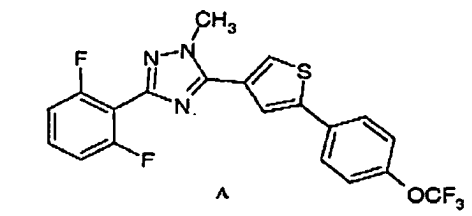
There is no suggestion that compounds connected to the triazole ring at the 3-position of thiophene ring and having a phenyl group substituted with haloalkyl, haloalkoxy or phenoxy at the 5-position of the thiophene ring would have exceptional broad spectrum insecticidal activity and, especially, activity against lepidoptera. In fact, Pechacek *et al.* is totally silent about activity against lepidoptera.

To more clearly demonstrate the unobviousness of the present invention over Pechacek *et al.* and the invention taught or suggested therein, the Applicants submit herewith an Affidavit by Dr. James E. Dripps.

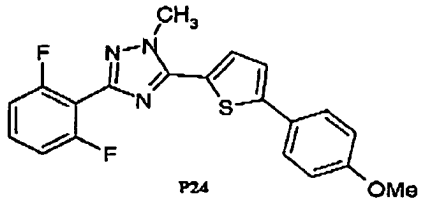
This Rule 132 Affidavit is based on the test for unobviousness as set forth in Ex parte Dole, 119 USPQ 260. Since this test for unobviousness appears to be basic law today, and this decision has not been overruled or overturned, such test was employed.

Ex parte Dole is directed to the same issue as in the present rejection. In essence, the Board, in this decision, set forth the requirements which must be met if patentable distinctions are to be found between analogous compounds. One such requirement is that the activity of the claimed compounds must be "unexpectedly advantageous" over that of the prior art compound. Another requirement is that any affidavit filed must set forth sufficient data (facts) to permit real evaluation, rather than it being based on unsupported statements of conclusion or opinion. The other basic requirement made by the Board is that any advantage or area of advantage which is found or set forth must itself find support in the specification as filed.

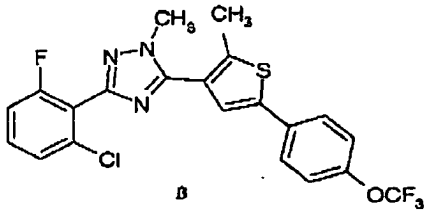
As indicated hereinabove, the Rule 132 Affidavit of Dr. Dripps compares the insecticidal activity of three compounds of the present invention, viz., compounds A, B and C with the closest compounds disclosed or suggested by Pechacek *et al.*, viz., P24, P14 and the *para*-chloro analog of P28.



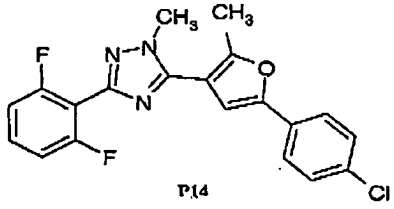
A



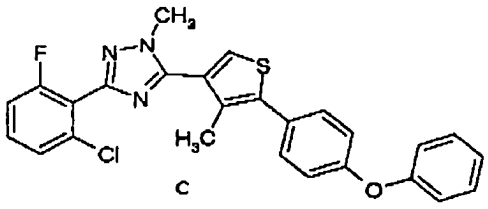
P24



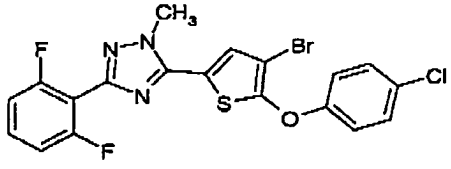
B



P14



C



P28

Compound A and compound P24 differ in the substitution orientation of the thiophene ring (3, 5 vs. 2, 4) and the identity of the phenyl substituents (OCF_3 vs. OCH_3). Compound B and compound P14, in addition to difluorophenyl substitution vs. fluorochlorophenyl substitution on the triazole ring, differ in the identity of the 5-membered heterocyclic ring attached to the triazole ring (thiophene vs. furan) and the identity of phenyl substituents (OCF_3 vs. Cl). Compound C and the compound that is the *p*-Cl analog of P28, in addition to difluorophenyl substitution vs. fluorochlorophenyl substitution on the triazole ring, differ in substitution on the thiophene ring (CH_3 vs. Br), in the substitution orientation of the thiophene ring (3, 4, 5 vs. 2, 4, 5) and the identity of the aryl substituents on the thiophene ring (diphenyloxide vs. chlorophenoxide).

It is understood that any showing (data) set forth to rebut a presumption of obviousness over the prior art reference, must meet the requirements of Ex parte Dole and in addition must be sufficient to establish a difference in kind and not indicate a mere difference in degree.

The question which must be answered is whether or not a sufficient showing has been made in the affidavit presented herewith.

The affidavit of Dr. Dripps proves beyond a doubt the "unexpectedly advantageous" insecticidal properties of the present invention against *Lepidoptera*. As illustrated in the affidavit, Compounds A, B and C of the present invention exhibit excellent control of beet armyworm, a member of the lepidopteran order of insects, while the prior art compounds P24, P14 and the *p*-chloroanalog P28 have virtually no activity against beet armyworm.

It is to be further noted that the showings are direct comparisons of an active compound of the present claims and the most closely related compounds of the prior art. In all cases, the differences in activity shown are true differences in kind and not mere difference in degree.

The compounds chosen for the comparative showing are (a) the closest compounds taught by the prior art or (b) the closest compound within the generic disclosure of the prior art.

From the data presented in the Affidavit taken as a whole, it is established without question that the presently claimed compounds possess activity far and above the prior art compounds and the present invention is not anticipated by or obvious in view of Pechacek *et al.*

Claims 1-14 stand rejected under the judicially created doctrine of obviousness-type double patenting over claim 1 of U.S. Patent 6,770,665 (Hegde *et al*). Hegde *et al.*, which is the parent application of the present application, is commonly owned by Dow AgroSciences LLC. Should the present claims be found allowable, the applicants are willing to file a terminal disclaimer with request to Hegde *et al.*

On the basis of the above amendments and remarks, reconsideration of this application and its early allowance are requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 04-1529 and please credit any excess fees to such deposit account.

Respectfully submitted,

Craig E. Mixan

Craig E. Mixan
Registration No. 32,709
Phone: (317) 337-4812

9330 Zionsville Road
Indianapolis, Indiana 46268